IN THE SPECIFICATION:

Replace the paragraph on page 2, lines 12-14, with the foll wing paragraph:

~~A~~According to a first aspect of the invention, there is provided a method for use in quantitative analysis of a turbid pharmaceutical sample, in particular, a pharmaceutical tablet, capsule, bulk powder, or an equivalent pharmaceutical dose.~~A~~

IN THE CLAIMS:

Replace claims 1-40 as filed with amended claims 1-40. Add new claims 41-45.

1. (Amended) A method for use in quantitative analysis of a turbid, pharmaceutical sample, comprising the following steps:

a) providing an excitation beam of radiation;

b) irradiating a turbid pharmaceutical sample with the excitation beam of radiation; and

c) detecting the intensity of emitted radiation from the sample as a function of both the wavelength of the emitted radiation and the photon propagation time through the sample.

2. (Amended) The method as claimed in claim 1, wherein the emitted radiation comprises transmitted radiation from the sample.

3. (Amended) The method as claimed in claim 1, wherein the emitted radiation comprises diffusely reflected radiation from the sample.

4. (Amended) The method as claimed in claim 1, wherein the emitted radiation comprises transmitted radiation and diffusely reflected radiation from the sample.

5. (Amended) The method as claimed in claim 1, wherein the excitation beam is a pulsed excitation beam presenting a pulse train of excitation pulses, and wherein the step of detecting the intensity as a function of the photon propagation time is performed in time synchronism with the excitation pulses.

6. (Amended) The method as claimed in claim 5, wherein the excitation pulses have a pulse length shorter than the photon propagation time.

7. (Amended) The method as claimed in claim 6, wherein the excitation pulses have a pulse length selected short enough in relation to the photon propagation time such that any undesired interference between intensity measurements relating to two subsequent excitation pulses is prevented.

8. (Amended) The method as claimed in claim 1, wherein the excitation beam is an intensity modulated excitation beam.

9. (Amended) The method as claimed in claim 8, wherein the step of detecting the intensity as a function of the photon propagation time is performed by comparing the phase of the intensity modulated excitation beam with the phase of the emitted radiation from the sample.

10. (Amended) The method as claimed in claim 8, wherein the step of detecting the intensity as a function of the photon propagation time is performed by comparing the modulation depth of the intensity modulated excitation beam with the modulation depth of the emitted radiation from the sample.

11. (Amended) The method as claimed in any one of claims 1-10, wherein the detection of the intensity of emitted radiation from the sample as a function of time is performed with the use of a time-resolved detection unit.

12. (Amended) The method as claimed in any one of claims 1-10, wherein the detection of the intensity of emitted radiation from the sample as a function of time is performed with the use of a phase-resolved detection unit.

13. (Amended) The method as claimed in any one of claims 1-10, wherein the detection of the intensity of emitted radiation from the sample as a function of time is performed with the use of a time-gated system.

14. (Amended) The method as claimed in any one of claims 1-10, wherein the step of detecting the intensity further comprises a spatial-resolved detection of the intensity.

15. (Amended) The method as claimed in any one of claims 1-10, wherein the turbid pharmaceutical sample is a solid sample.

16. (Amended) The method as claimed in claim 15, wherein the step of irradiating the sample with the excitation beam comprises the step of irradiating a first surface of the solid sample.

17. (Amended) The method as claimed in claim 15, wherein the step of irradiating the sample with the excitation beam comprises the step of irradiating a first surface and a second surface of the solid sample.

18. (Amended) The method as claimed in claim 17, wherein the first surface and the second surface of the solid sample are irradiated at different points in time.

19. (Amended) The method as claimed in any one of claims 1-10, wherein the turbid pharmaceutical sample is a dispersion.

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20. (Amended) The method as claimed in any one of claims 1-10, wherein the excitation beam comprises infrared radiation.

21. (Amended) The method as claimed in claim 20, wherein the infrared radiation is near infrared radiation (NIR).

22. (Amended) The method as claimed in claim 21, wherein the radiation has a frequency in the range corresponding to wavelengths from about 700 to about 1700 nm.

23. (Amended) The method as claimed in any one of claims 1-10, wherein the excitation beam comprises visible light.

24. (Amended) The method as claimed in one of claims 1-10, wherein the excitation beam comprises UV radiation.

25. (Amended) A method for use in an analysis of a turbid sample comprising directing an excitation radiation beam onto the sample and measuring the intensity of emitted radiation from the thus radiated sample as a function of both wavelength of the emitted radiation and photon propagation time through the sample.

26. (Amended) An apparatus for use in quantitative analysis of a turbid pharmaceutical sample, comprising:

a) means for generating an excitation beam of radiation;

b) means for positioning a turbid pharmaceutical sample,

c) means for focusing the excitation beam onto the sample;

d) means for detecting the intensity of emitted radiation from the sample as a function of both the wavelength of the emitted radiation and the photon propagation time through the sample.

27. (Amended) The apparatus as claimed in claim 26, wherein the means for detecting comprises a time-resolved detection unit.

28. (Amended) The apparatus as claimed in claim 27, wherein the time-resolved detection unit comprises a streak camera.

29. (Amended) The apparatus as claimed in claim 26, wherein the means for detecting comprises a phase-resolved detection unit.

30. (Amended) The apparatus as claimed in claim 26, wherein the means for detecting comprises a time-gated system.

31. (Amended) The apparatus as claimed in any of claims 26-30, further comprising means for performing a spatial-resolved detection of the intensity of the emitted radiation.

32. (Amended) The apparatus as claimed in any one of claims 26-30, wherein the turbid pharmaceutical sample is a solid sample.

33. (Amended) The apparatus as claimed in any one of claims 26-30, wherein the turbid pharmaceutical sample is a dispersion.

34. (Amended) The apparatus as claimed in claim 26, wherein the excitation beam comprises infrared radiation.

35. (Amended) The apparatus as claimed in claim 34, wherein the infrared radiation is near infrared radiation (NIR).

36. (Amended) The apparatus as claimed in claim 26, wherein the radiation has a frequency in the range corresponding to wavelengths from about 700 to about 1700 nm.

37. (Amended) The apparatus as claimed in any one of claims 26-30, wherein the excitation beam comprises visible light.

38. (Amended) The apparatus as claimed in any one of claims 26-30, wherein the excitation beam comprises UV radiation.

39. (Amended) The apparatus as claimed in any one of claims 26-30, wherein the means for generating the excitation beam comprises one or more diode lasers.

40. (Amended) The apparatus as claimed in any one of claims 26-30, wherein the means for generating the excitation beam comprises an intensity modulated lamp.

41. (New) The method as claimed in any one of claims 1-10, wherein the turbid pharmaceutical sample is a tablet, a capsule, a bulk powder, or a pharmaceutical dose.

42. (New) The method as claimed in claim 15, wherein the step of irradiating the sample with the excitation beam comprises the step of irradiating oppositely directed surfaces.

43. (New) The method as claimed in claim 21, wherein the radiation has a frequency in the range corresponding to wavelengths from about 700 nm to about 1300 nm.

44. (New) The apparatus as claimed in any one of claims 26-30, wherein the turbid pharmaceutical sample is a tablet, a capsule, a bulk powder, or a pharmaceutical dose.

45. (New) The apparatus as claimed in claim 26, wherein the radiation has a frequency in the range corresponding to wavelengths from about 700 nm to about 1300 nm.